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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,651	09/29/2005	Tatsuya Shinkawa	4255-22	5684

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EXAMINER	
SUAREZ, ERNESTO A	

ART UNIT	PAPER NUMBER
3653	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/551,651	SHINKAWA ET AL.	
	Examiner	Art Unit	
	ERNESTO SUAREZ	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5-7,17 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-7,17,19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities: Lines 35-36 recite "side wall member that closes the open position," it appears applicant meant to recite --the open portion--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 5, 7, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima et al. (US Patent No. 5,913,095) in view of Takashimizu et al. (US Patent No. 5,743,518) and further in view of Norris (US Patent No. 4,985,714).

Regarding claim 1, Takashima et al. discloses a recording medium discharge mechanism positioned between an original capturing portion arranged in a device upper portion and a feeding portion arranged in a device lower portion of an image forming apparatus (Fig. 8), comprising:

A recording medium placement surface (40) being a bottom surface of a discharge space, the discharge space having an open portion laterally to a downstream side in a recording medium discharge direction and receiving the recording medium (P) that has undergone image formation in an image-forming portion of the image forming apparatus, (Figs. 8-9)

Wherein a discharge direction length of the recording medium placement surface is shorter than a length of a paper cassette (3) of the feeding portion arranged to hold one or more types of recording media used in the image forming apparatus; (Fig. 8) and

A side wall member (21) being provided at the downstream end portion in the recording medium discharge direction of the recording medium placement surface, (Fig. 9)

Wherein the side wall member is rotatably supported to rotate around a rotational axle (23) extending in a horizontal direction perpendicular to the recording medium discharge direction, and is capable of moving between an upright state (Fig. 8) that closes the open portion of the downstream side in the recording medium discharge direction in the discharge space and a laid flat state (Fig. 9) in which the placement surface for placing a discharged recording medium is extended toward the downstream side in the recording medium discharge direction.

Takashima et al. does not explicitly disclose a biasing member or wherein the side wall member is arranged to receive a biasing force by the biasing member so as to rotate from the laid flat state to the upright state, and wherein the side wall member is configured to move from the upright state to the laid flat state against the biasing force by the biasing member only upon receiving an external force from the recording medium having a discharge speed greater than a predetermined speed or having a hardness greater than a predetermined hardness when the recording medium has been discharged to the discharge space in the upright state of the side wall member that closes the open portion and the side wall member is also configured to move to the upright state with a lower end surface of the side wall member abutting on the recording medium placement surface due to the biasing force by the biasing member when the recording medium placed on the recording medium placement surface has been removed in the laid flat state of the side wall member.

Takashima et al. does not explicitly disclose a lower end surface of the side wall member abutting on the recording medium placement surface in the upright state but the claimed structural relationship is well known in the art as demonstrated by Takashimizu et al. Takashimizu et al. teaches a side wall member (514) and lower end surface thereof abutting on a recording medium placement surface in an upright state. (Fig. 2)

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Takashima's disclosed side wall member with a lower end surface abutting on the recording medium placement surface in the upright state, for the purpose of saving space and reducing the overall footprint of the image forming apparatus and further reducing misfeeds and jams by providing continual contact and guiding planes when discharging the recording medium.

Norris teaches a biasing member (96) and a side wall member (58, 56) arranged to receive a biasing force (Fig. 3) by the biasing member (96) so as to rotate from the laid flat state to the upright state, and the side wall member is configured to move from the upright state to a laid flat state (Fig. 4) against the biasing force by the biasing member only upon receiving an external force from a recording medium (16) having a discharge speed greater than a predetermined speed or having a hardness greater than a predetermined hardness (C6/L29-34) when the recording medium has been discharged in the upright state of the side wall member that closes an open portion (figs. 3-4), and the side wall member is also configured to move to the upright state due to the biasing force by the biasing member when the recording medium placed on the recording medium placement surface has been removed in the laid flat state of the side wall member (C6/L12-16).

At the time of the invention it would have been obvious to one of ordinary skill in the art to further modify Takashima et al. disclosed side wall member to be arranged to receive a biasing force from a biasing member so as to rotate from the laid flat state to the upright state and move from the upright state to the laid flat state against the biasing force by the biasing member only upon receiving an external force from a recording medium having a discharge speed greater than a predetermined speed or having a hardness greater than a predetermined hardness when the recording medium has been discharged to the discharge space in the upright state of the side wall member that closes the open portion, and further configure the side wall member to move to the upright state due to the biasing force by the biasing member when the recording medium placed on the recording medium placement surface has been removed in the laid flat state of the side wall member, as taught by Norris for the purpose of reducing paper jamming in the discharge mechanism caused by long recording media and eliminating constant user adjustment of the side wall member whenever a feeding and discharging operation is to be performed.

Regarding claim 5, Takashima et al. as modified above, discloses wherein when the discharge direction length of the recording medium placement surface of the discharge space is given as L1, the length of the paper cassette of the feeding portion arranged to hold one or more types of recording media used in the image forming apparatus is given as L2 and an extension length dimension toward a downstream side in the recording medium discharge direction when the side wall member has been put into the laid flat state is given as L3, $L3 \leq L2 - L1$. (Takashima et al, Figs. 8-9)

Regarding claim 7, Takashima et al. as modified above discloses an original capturing portion arranged at an upper portion of the recording medium discharge mechanism and a feeding portion arranged at lower portion of the recording medium discharge mechanism. (Takashima et al. Fig. 8)

Regarding claim 17, Takashima et al. as modified above discloses wherein the discharge space is formed interior to an image forming apparatus formed by the original capturing portion and the feeding portion. (Takashima et al, Fig. 8)

Regarding claim 19, Takashima et al. as modified above discloses wherein the discharge space is separate from an original discharge space of the original capturing portion in which originally scanned documents are discharged after being scanned. (Takashima et al., Figs. 8-9)

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima et al. in view of Takashimizu et al. in view of Norris and further in view of Ishikawa et al. (US Patent No. 4,838,534).

Takashima et al. as modified above does not expressly disclose wherein the side wall member is structured using a transparent member or a semitransparent member.

Ishikawa et al. discloses wherein a side wall member (85) is structured using a transparent member or a semitransparent member such that the stack of paper on the table can be observed when it is closed. (C15/L16-19)

At the time of the invention it would have been obvious to one of ordinary skill in the art to further modify Takashima et al. disclosed side wall member to be structured using a transparent member or a semitransparent member as taught by Ishikawa et al. such that the stack of paper can be observed when the side wall member is in an upright closed position.

Response to Arguments

Applicant's arguments with respect to claims 1, 5-7, 17 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERNESTO SUAREZ whose telephone number is (571) 270-5565. The examiner can normally be reached on Mon-Thurs, 10-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick Mackey/
Supervisory Patent Examiner, Art Unit 3653

/E. S./

Examiner, Art Unit 3653